

Claims

- 5 1. Ram air channel (10) for the supply of ambient air in an aircraft, which includes a first air inlet (12) and a main flow channel (16) which extends downstream flow of the first air inlet (12),
characterised in that the ram air channel (10) has a second air inlet (24) independent from the first air inlet (12).
- 10 2. Ram air channel in accordance with claim 1,
characterised in that the second air inlet (24) is connected to the main flow channel (16) of the ram air channel (10) by means of a side channel (22) which extends essentially radially to the main flow channel (16).
- 15 3. Ram air channel in accordance with claim 1 or 2,
characterised in that the first air inlet (12) has a constant flow cross-section.
- 20 4. Ram air channel in accordance with any of the claims 1 to 3,
characterised in that a movable element (36) is provided for the setting of a flow cross-section of the second air inlet (24).
- 25 5. Ram air channel in accordance with claim 4,
characterised in that the movable element (36) is in the form of a flap which rotates around an axis (34).
- 30 6. Ram air channel in accordance with claim 4 or 5,
characterised in that a device for the creation of low pressure in the area of the second air inlet (24) is provided in order to move the movable element (36) to a first position in which it at least partially opens the flow cross-section of the second air inlet (24).
- 35 7. Ram air channel in accordance with any of the claims 4 to 6,
characterised in that the movable element (36) is such, that it moves into a second position during the start-up process of the aircraft by means of a flow of air flowing past the second air inlet (24), and is held, as a result of ram pressure which builds

- 9 -

up in the ram air channel (10) during the flight, in the second position in which it shuts the flow cross-section of the second air inlet (24)

8. Ram air channel in accordance with any of the claims 4 to 7,
characterised in that an electro-mechanical control device is provided in order to
move the movable element (36) into a first position in which it at least partially
opens the flow cross-section of the second air inlet (24), or into a second position, in
which it closes the flow cross-section of the second air inlet (24).

9. Ram air channel in accordance with any of the claims 4 to 8,
characterised in that a mechanical device is provided in order to hold the movable
element (36) in a first position in which it at least partially opens the flow cross-
section of the second air inlet (24), or in a second position in which it shuts the flow
cross-section of the second air inlet (24).

10. Process for the operation of a ram air channel in accordance with any of the
claims 1 to 9, with which ambient air is supplied during the flight by means of the
first air inlet (12) and with which, when the aircraft is on the ground, ambient air is
supplied by means of the first and the second air inlet (12, 24).